UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,720	10/11/2005	Karsten Emrich	016906-0442	6799

22428 7590 08/05/2008

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
DUONG, THO V	

ART UNIT	PAPER NUMBER
3744	

MAIL DATE	DELIVERY MODE
08/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,720	EMRICH ET AL.	
	Examiner	Art Unit	
	Tho v. Duong	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/3/08 and 10/11/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 3, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 1 and 3 recites the broad recitation "a heat exchanger", "connected" and "a stiffening" respectively, and the claim also recites "a charge-air cooler for motor vehicle", "soldered" and "a bead" which is the narrower statement of the range/limitation.

Regarding claim 16, the claimed limitation of "the orifices are designed as outwardly directed rim holes" renders the scope of the claim indefinite since claim 7 which claim 16 depends on, already recite that the orifices are designed as inwardly directed rim hole. It is not clear whether applicant is claiming that the orifices are designed as inwardly or outwardly directed rim hole.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed subject matter of "a bead" and "outwardly directed rim holes" and "the profile strips have recesses which are adapted to the form of the narrow sides of the rim holes" in combination with" the profile strips are produced in one piece with the header box" must be shown or the feature(s) canceled from the claims 3, 9 and 11-16. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the claimed subject matter of "the profile strips have recesses which are adapted to the form of the narrow sides of the rim holes" in combination with" the profile strips are produced in one piece with the header box" is not described in the specification.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US 2002/0144805A1). Kim discloses (figures 18-21) a heat exchanger with flat tubes (310) having tube ends, and with header boxes which are connected, especially soldered, to tube bottoms, the tube bottom having orifices with longitudinal sides and narrow sides for receiving the tube ends, furthermore edge strips (210b) and transitional regions (210c) of channel-like design between the narrow sides and the edge strips (210b) and tube ends being soldered in the orifices wherein the transitional regions have a reinforcement (220c) is designed as a material thickening; a stiffening as a bead; a profile strip which is produced in one piece with the header box and the profile strip is inserted inside the transitional region; and the orifices are designed as outwardly directed rim holes, wherein the middle of the tube is considered to be the inner. Therefore, the orifices directed toward end of the tube are reasonably to consider as outwardly directed rim holes.

Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Naomasa et al. (JP 363233297A). Naomasa discloses (figure 2) a heat exchanger with flat tubes (24) having tube ends, and with header boxes which are connected, especially soldered, to tube bottoms, the tube bottom having orifices with longitudinal sides and narrow sides for receiving the tube ends, furthermore edge strips (3,4) and transitional regions (3) of channel-like design between the narrow sides and the edge strips and tube ends being soldered in the orifices wherein the transitional regions have a reinforcement (inserted part of header box with solder into slot formed in the tube bottom) is designed as a material thickening; a stiffening as a bead; a profile strip which is produced in one piece with the header box and the profile strip is inserted inside the transitional region; and the orifices are designed as outwardly directed rim holes, wherein the middle of the tube is considered to be the inner. Therefore, the orifices directed toward end of the tube are reasonably to consider as outwardly directed rim holes. Regarding claims 7,9 and 10, the profile strips have recesses (formed on solder material to conform with corner of tube bottom) which are adapted to the form of the narrow sides of the rim holes and the orifices are designed as inwardly directed rim holes toward the header box.

Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kado et al. (US 6,035,931). Kado discloses (figures 4-5) a heat exchanger with flat tubes (6) having tube ends, and with header boxes which are connected, especially soldered, to tube bottoms, the tube bottom having orifices with longitudinal sides and narrow sides for receiving the tube ends, furthermore edge strips (11a) and transitional regions (10b) of channel-like design between the narrow sides and the edge strips and tube ends being soldered in the orifices wherein the transitional regions have a reinforcement (11b) is designed as a material thickening; a stiffening

as a bead; a profile strip which is produced in one piece with the header box and the profile strip is inserted inside the transitional region; and the orifices are designed as outwardly directed rim holes, wherein the middle of the tube is considered to be the inner. Therefore, the orifices directed toward end of the tube are reasonably to consider as outwardly directed rim holes. Regarding claims 7,9 and 10, the profile strips have recesses (11c) which are adapted to the form of the narrow sides of the rim holes and the orifices are designed as inwardly directed rim holes toward the header box.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Legrange et al. (US 5,664,625) discloses header plates for heat exchanger.

A. L. Garratt (US 2,656,155) discloses a radiator.

Chartet (US 3,857,164) discloses a method for brazing radiators.

S. Przyborowski (US 2,627,241) discloses an apparatus for making a radiator core.

M. G. Boerger (US 2,073,778) discloses a radiator.

Kalbacher (US 2003/0006028A1) discloses a heat exchanger and method of making a heat exchanger.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/
Primary Examiner, Art Unit 3744